IUK Access Agreement Summary

10 Oct 2013

Preface

This document (the "IUK Access Agreement Summary" or "IAAS") describes the transportation model and the related services offered by Interconnector (UK) Limited ("IUK") for the period to 30 September 2018 through the IUK Access Agreement ("IAA").

The IAAS is provided for the purpose of assisting potential shippers in deciding whether or not they wish to partake in the services offered by IUK under the IAA. As such, the IAAS should not be construed as giving rise to any contractual relationship between IUK (or any of its affiliated entities) and any other party.

October 2013

INTRODUCTION

Interconnector (UK) Limited own and operate the Interconnector gas pipeline. The Interconnector links the GB and Belgian gas markets physically and commercially, offering trading opportunities in the Northwest European market areas of NBP, ZPT and Zee Beach, and access to the wider European markets.

Since its inauguration in October 1998, the Interconnector has been a major catalyst in the creation of the spot gas market within Europe and a key factor in the liberalisation of energy markets.

In addition, ours is the only facility to offer a fully flexible commercial and physical bi-directional service between the gas markets of GB and continental Europe. As such, we provide important security of supply across the whole European region.

Regulatory Obligations

IUK is certified as a Transmission System Operator by the National Regulatory Authorities of GB and Belgium, Ofgem[1] and CREG[2]. Together with our NRAs and connected transporters, National Grid Gas and Fluxys, we are helping to harmonise the European Energy Market through the implementation of the Third Energy Package and associated legislation[3].

The Interconnector Access Agreement ("IAA")

In response to new legislation, IUK have developed congestion management procedures designed to facilitate cross-border trade and market liquidity. These procedures include provisions that:

- Enable parties to buy capacity directly from IUK, in addition to existing secondary market mechanisms
- Introduce auctions for additional capacity, on an over-subscription basis, that will be made available on a day-ahead basis
- Introduce a new Buy-back mechanism

Parties can access these new service provisions by signing up to the IUK Access Agreement ("IAA").

This document provides the reader with an overview of the services offered under the IAA.

The service provisions contained within the IAA have been developed in co-ordination with our stakeholders and are designed to meet a real market need. As a valued stakeholder, we are keen to help you understand how these provisions can help you and hear your views on the continued development of our service. Please contact us to discuss the IAA further on +44 (0)20 7092 6500, or email iukinfo@interconnector.com.

[1] Office of Gas and Electricity Markets
[2] La Commission de Régulation de l'Electricité et du Gaz
[3] Amended guidelines for CMP in Annex I of Regulation (EC) No 715/2009 were published in the European Official Journal, on 24 August 2012, following approval by the European Parliament and Council: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:231:0016:0020:en:PDF

THE IUK SYSTEM

Physical Operations

The IUK system comprises:

- A compression/reception terminal at Bacton, GB, with connections to the National Grid Gas transmission system and SILK Pipeline[4]
- A compression/reception terminal at Zeebrugge, Belgium, with a connection to the Fluxys transmission system
- A 235 kilometre pipeline between the two terminals, within the GB and Belgium sectors of the southern North Sea.

The technical capacity of our facilities varies with operating conditions and Gross Calorific Value (GCV). The average GCV value over the previous five years is illustrated in the table below.

Entry at Bacton and **Exit at Zeebrugge**					**Entry at Zeebrugge** and **Exit at Bacton**			
	GCV (KWh/Nm^3)	**Capacity** (bcm/y)	**Capacity** (GWh/d)			**GCV** (KWh/Nm^3)	**Capacity** (bcm/y)	**Capacity** (GWh/d)
Average	11.5	20.0	630.1		Average	11.5	25.5	803.4
Note: "Entry" means entry into the Interconnector system and "Exit" means exit from the Interconnector system								

Transportation Model

IUK offers transportation services to the market within an entry/exit model. Under this model, gas enters the IUK system at an Entry Point from National Grid Gas, Fluxys or the SILK Pipeline, and can either leave the system at an Exit Point to National Grid Gas or Fluxys. There is no exit from the IUK system at the connection point with SILK. The Entry and Exit Points with National Grid Gas and Fluxys are Interconnection Points[5] with the transmission grids operated by these TSOs.

Balancing Regime

IAA Shipper Responsibility

To ensure the reliable and efficient operation of the Interconnector system, the total quantities of gas entering the system must, on a hourly basis, be in balance with the total quantities of gas leaving the system. IAA Shippers are responsible for ensuring that their nominations are balanced across the system every hour of the day.

Linepack

Although IAA Shippers do not own any inventory in the system, a small inventory imbalance within a defined tolerance is allowable until the Shipper's next transaction. This may arise due to steering differences. However after 3 months inactivity, if the contract is terminated, or following a potential constraint situation taking the IAA Shipper outside of their tolerance, IUK will cash-out the imbalance position back to zero.

[4] The SILK Pipeline can deliver upstream gas directly to the IUK system

[5] "'Interconnection Point' means a fixed or virtual point connecting adjacent entry-exit systems or connecting an entry-exit system with an interconnector, in so far as these points are subject to booking procedures by network users" (CAM NWC)

OBA

IUK works closely with its neighbouring transporters. An Operational Balancing Agreement with Fluxys allows IUK to meet nominations exactly and provides IUK with flexibilityto run operations in the most efficient manner without impacting Shipper flows.

Our Service Offer

IUK offers entry-exit services through the Interconnector, in accordance with rules set out in the IUK Access Agreement.

In addition, IUK support a suite of secondary market mechanisms under its alternative contract, the Standard Transportation Agreement ("STA"). Please visit www.interconnector.com for more details about the STA and the service provision available.

Entry and Exit Services on Interconnection Points

Entry services enable gas to be delivered into the IUK system at a specified Entry Point. Exit services enable gas to be withdrawn from the IUK System at a specified Exit Point.

The following services are available within the IAA:

Location	Entry Point	Exit Point	Capacity	
			Firm	Interruptible
Bacton	IBT	IZT	✓	●
	SILK	IZT	●	●
	SILK	IBT	●	●
Zeebrugge	IZT	IBT	✓	●

✓ = Service is offered and can be contracted within indicative availabilities as published on IUK Bulletin Board
● = Service is not available under the IAA, but is accessible via the secondary market, conditional on capacity being offered for sale

Under the IAA, Entry Capacity at the IBT Entry Point must be purchased in conjunction with an equal amount of Exit Capacity at the IZT Exit Point. Similarly, Entry Capacity at the IZT Entry Point must be purchased in conjunction with an equal amount of Exit Capacity at the IBT Exit Point[6].

Service Provision Under the IAA

The IAA offers the opportunity for any party to become an IAA Shipper, hold an ISIS[7] account, and be ready to access Firm Capacity made available through the Oversubscription mechanism described below and the Surrender and LT UIOLI mechanisms applied through the implementation of CMP. These products are all for one day duration purchased day-ahead via a pay-as-bid auction.

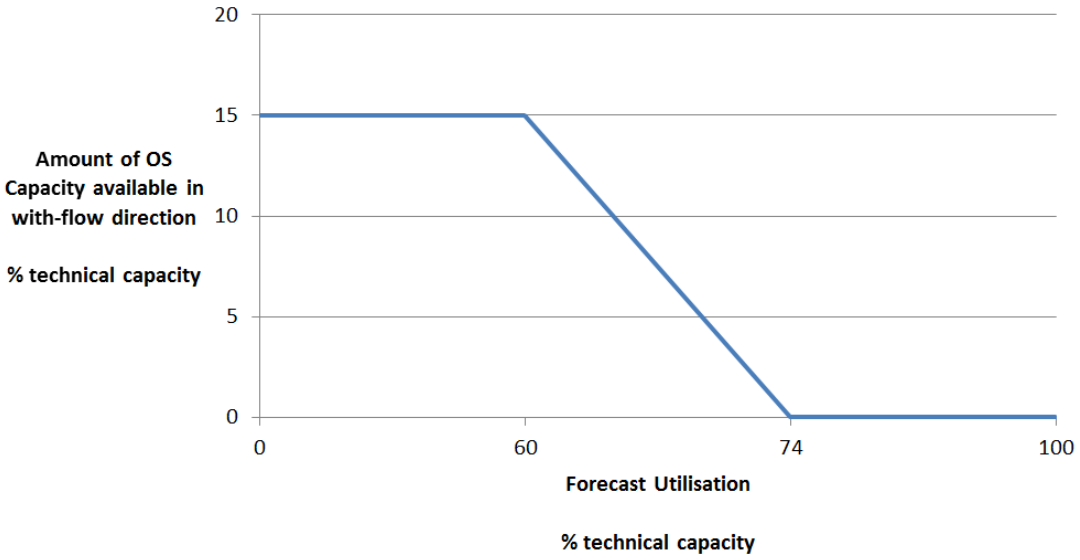
Oversubscription and Buy-back

Oversubscription and Buy-back ("OS" and "BB") is based on the idea that the right to use a commodity, capacity in this case, can be 'oversold' (in comparison to the technical maximum capacity) with an expectation that not all buyers will exercise their right to use at the same time. Should difficulties arise in meeting the resulting aggregate net nomination, a mechanism is in place for capacity to be bought back by IUK in order to reduce the aggregate net nomination to within the system capability, i.e. Buy-back.

[6] This condition may be lifted as the IAA is developed in line with further EU regulatory requirements.
[7] The Interconnector Shippers Information System ("ISIS") is IUK's web-based gas management tool. ISIS allows Shippers to communicate with IUK and specify their gas flow requirements.

Under the IAA, Shippers are able to bid for Firm Day-Ahead Capacity through the Interconnector made available via the Oversubscription mechanism (or Surrender or LT UIOLI), on a Ship or Pay basis. Capacity sold under the IAA does not have associated inventory or inventory flexibility; as a result nominations must be balanced on an hourly basis such that entry equals exit.

IUK determine and announce if, and how much, OS Capacity is to be made available on a day-ahead basis. The calculation is based on a statistical scenario model which includes risk profiling to minimise the need for Buy-back[8]. Current flow rates for today are to be used to forecast nominations for tomorrow[9].



Bulletin Board

All available capacity is advertised on IUK's Bulletin Board. This is accessible via ISIS and IUK's website, http://www.interconnector.com/operational-data/capacity-summary

IUK will, when circumstances require, advertise its Buy-back requirements on the Bulletin Board.

Secondary Market Mechanisms

Within the IUK system, capacity[10] can be traded on a secondary market, with available capacity advertised on the Bulletin Board. IUK support the following secondary market mechanisms:

[8] At very high flows, the Interconnector operates at or very close to its design limits and consequently there is no further capacity available on a firm basis and limited, if any, capacity available on an interruptible basis without incurring undue safety and system integrity risks. Not making OS Capacity available in the prevailing flow direction when demand is forecast to exceed 75% reflects the fact that Shippers' nominations can change considerably within-day in response to events and/or pricing signals, and consequently ensures that the requirement to buy back will be not be excessive.

[9] The quantity of OS Capacity made available is at the discretion of IUK; whilst the quantity will be based upon today's flowrates, IUK made deem it prudent to reduce the quantity of OS Capacity made available tomorrow, given additional market information, in order to ensure safe and efficient operations.

10 This refers to (a) capacity bought under the Standard Transportation Agreement, and to (b) capacity bought under the Interconnector Standard Sub-Let Contract (or alternative) and therefore operating under the terms of the STA via their Sub-lessor.

- Assignment
- Sub-letting
- Capacity Transfer
- Third-party shipping service
- Pooling

For more information about these mechanisms, please visit http://www.interconnector.com/access-services/access-to-capacity

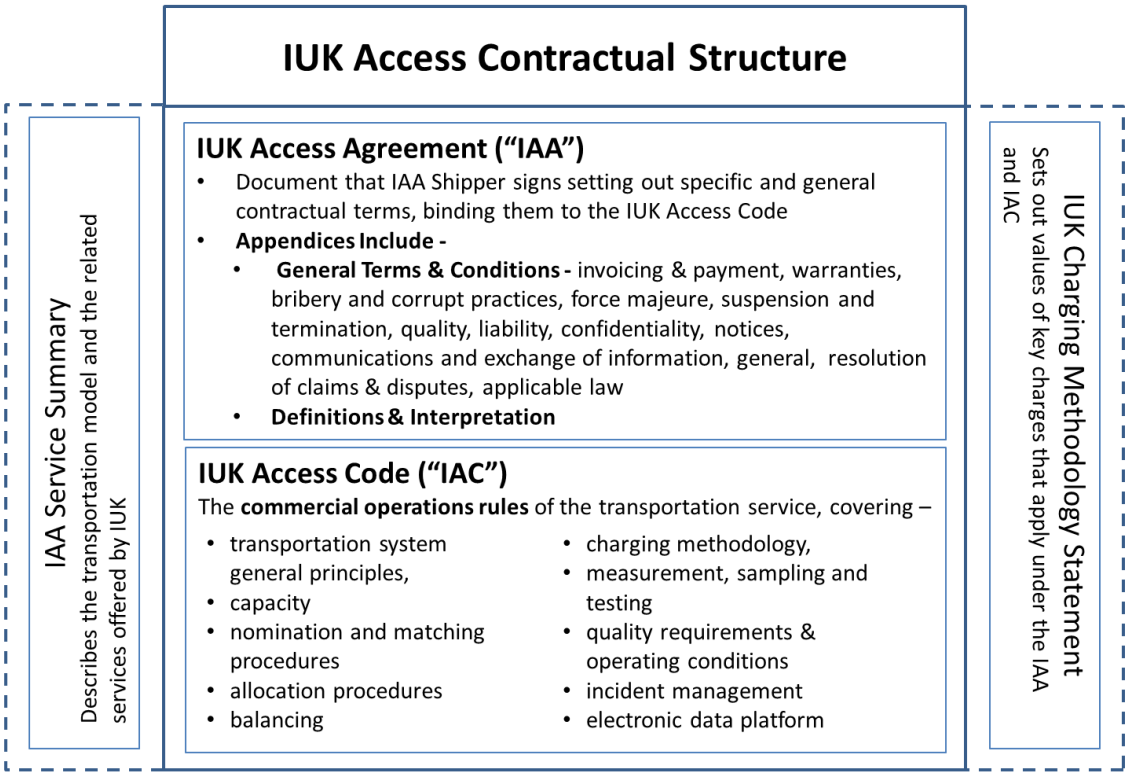
In order to ensure a liquid market, IUK have developed rules allowing the trading on of traded capacity.

Service Subscription and Capacity Rules

In order to subscribe and use the entry-exit services outlined above, a party must first sign the IUK Access Agreement ("IAA") and adhere to the capacity utilisation rules contained therein.

The IUK Access Agreement

The IAA is a suite of documents designed to enable you to use IUK's entry-exit services.



The IAA is concluded for an indefinite period, with termination rights defined; the service confirmation will be set out on the Interconnector Shipper Information System ("ISIS"), the IUK online communication platform and gas-flow management system.

Capacity Booking

Capacity made available through OS, Surrendered and/or LT UIOLI Capacity is allocated via an auction process.

Firm Capacity is offered to Shippers on a day-ahead basis, the amount available at each Entry and Exit Point to be determined and published day-ahead by IUK. All Shippers will then be eligible to partake in the auction, to be held via ISIS. Successful bidders will be notified following closure of the auction.

The daily timetable for booking capacity will be as follows:

14:15 UKT/ 15:15 CET	▪ IUK calculate the amount of capacity to make available for tomorrow
14:30 UKT/ 15:30 CET	▪ IUK advertise the amount of capacity and the reserve price on the IUK Bulletin Board ▪ Shippers enter bids for capacity
16:00 UKT/ 17:00 CET	▪ The capacity bid process closes ▪ IUK notify successful bidders
17:00 UKT/ 18:00 CET	▪ Capacity for tomorrow is transferred to the successful bidders

Buy-Back

If aggregate nominations exceed, or are predicted to exceed, the physical capability of the IUK system, and OS Capacity has been sold, then a Buy-back process will be initiated. IUK will determine the quantity of capacity to be bought back to reduce the aggregate net nominations to within the physical capability of the IUK system.

IUK will publish a notification on the Bulletin Board making Shippers aware that Buy-back is required and providing details of the quantity and direction of capacity sought. All Shippers will be invited to offer capacity, which will be bought by IUK through a pay-as-bid auction. IUK will accept offers of capacity in order of price, starting with the lowest offer until the required Buy-back volume is met[11].

The process will be completed within 4 hours:

hh:mm	▪ IUK publish on Bulletin Board that Buy-back is required including quantity and entry/exit direction
hh:mm	▪ Shippers can enter an offer to sell Firm Capacity back to IUK at a price set by the Shipper
hh:mm + exactly 1hr	▪ Buy-back capacity offer process closed ▪ IUK accepts the offers from the lowest priced offer until required Buy-back volume met
hh:00 + 2:00	▪ All successful capacity offers for Buy-back accepted
hh:00 + 4:00	▪ Capacity transferred

[11] IUK will set a maximum Buy-back price in advance of any Buy-back auction, based on a pre-agreed methodology. Shippers may offer to sell capacity to IUK for a price greater than this maximum Buy-back price, however IUK will be required to reject any such bids. If IUK receives insufficient bids at or below this maximum Buy-back price to fulfil the full Buy-back requirement, the remaining capacity will be bought back via the Forced Buy-back mechanism.

Forced Buy-back will be triggered if insufficient capacity can be bought back through the auction process or if the requirement to Buy-back occurs after 10pm. Forced Buy-back will occur for all capacity bought under the IAA to the extent needed to bring nominations within the physical capability of the system. After the day the normal allocation process will result in an under-allocation and Buy-back payments will be due from IUK to each IAA Shipper.

OPERATING RULES

Nominations

To flow gas through the IUK system, Shippers must ensure they have matching capacity rights in the adjacent transportation system, or have sold their gas to another Shipper with the relevant capacity rights. Matching data provided by Shippers to IUK and connected transporters is used to create a nomination. A nomination is the quantity of gas that a Shipper wishes to flow into or out of the IUK system at each Entry or Exit point. Renominations can also be generated, should a Shipper's flow-requirements change, according to the procedure detailed in the IUK Access Code.

A nomination takes the form of a standardised electronic message, issued by Shippers, on ISIS. The message relates to a particular Gas Day (which begins at 06:00 hours and terminates at 06:00 hours the following day, UK time) and to a specific point, and provides for each hour of the relevant Gas Day the quantities of gas, expressed in kWh, that the Shipper wishes to deliver or offtake under its subscribed services at the relevant point.

The nomination process comprises the following steps:

- A Shipper sends nominations to IUK
- Nominations are then processed by IUK and matched with nominations in the adjacent system
- IUK calculates the scheduled quantities to be delivered/offtaken to/from the IUK System
- IUK sends a confirmation message in order to communicate to the Shipper the results of the process

Shippers may revise their nominations on a day-ahead or intraday basis by sending renominations, with a lead time of "full hour + 2". Nominations for Entry and Exit must be balanced on an hourly basis.

Metering and Allocations

IUK's metering arrangements are outlined in the IUK Access Code. Once IUK have metered the gas entering and leaving the IUK system, gas is allocated at each Entry and Exit Point on an hourly basis. This data is provided to the relevant Shipper in kWh.

Data Transparency

IUK publish the following information on its website and, where appropriate, the European Transparency platform:

- Available capacity and Buy-back notifications, on a daily basis
- The number and volume of unsuccessful, valid requests for Firm Capacity with a duration of one month or longer, on a bi-annual basis
- The total capacity made available through each of the Congestion Management Procedures mechanisms, on a rolling monthly basis

COSTS AND INVOICING

Sign-up Costs[12]

A £10,000 registration fee will cover the legal, administrative, set-up and training costs associated with signing the IAA and becoming an IAA Shipper.

A £500 monthly fee is payable by all IUK Shippers to cover ISIS access charges and on-going administration costs.

Auction and Reserve Price

The reserve price for Entry and Exit Capacity will be set by IUK to ensure equitable and non-discriminatory treatment across all Shippers. The same reserve price will be set for both Entry and Exit Capacity, since the same service is provided in each flow direction.

The auction will be pay as bid with the highest bids being accepted first. In the case of over-demand with bids at the same price then quantities will be accepted on a pro-rata basis.

Fuel

When capacity is nominated against, fuel gas and/or electricity is required. When gas is physically being entered into the system at Bacton, fuel gas is used principally by the gas turbines that power the compressors located at Bacton. When gas is physically being entered into the system at Zeebrugge, electricity is used by the electric motors that power the compressors located at Zeebrugge and a small amount of fuel gas is consumed in heating gas exiting the IUK system.

Shippers are invoiced for their share of fuel each month; in Sterling for fuel gas and in Euros for electricity.

Electricity charges are estimated at the start of each Gas Year and Shippers are then subject to an annual reconciliation to balance IUK's costs against revenue.

Invoicing Process

Shippers will be invoiced and must pay the initial registration fee before they will be granted ISIS access and be able to participate in the daily capacity auction process.

Thereafter, Shippers will be invoiced on a monthly basis in arrears for the following

1. Monthly administration fee; plus
2. Sum of daily Entry and Exit Capacity charges; plus
3. Sum of any balancing charges for negative balances; plus
4. Sum of fuel charges, less
5. Sum of any Buy-back Costs; and
6. Sum of any balancing charges for positive balances.

[12] These charges, applicable to the 2013/14 Gas Year, will be inflated each Gas Year

How to Contact Us

If you would like to find out more about the services offered by IUK, please do not hesitate to contact us on +44 (0)20 7092 6500, or email iukinfo@interconnector.com.

Disclaimer

The IAAS may be amended from time to time to reflect changing regulatory requirements and other modifications to the model and/or services on offer. Whilst IUK make every effort to ensure the IAAS is current and complete, it hereby disclaims any and all liability for changes to the services described herein.